

ABSTRACT

The present invention relates to attenuated forms of bovine viral diarrhea (BVD) viruses. In particular, the present invention relates to attenuated BVD viruses made by mutating the N^{pro} protease gene and inserting a bovine ubiquitin coding sequence. The
5 attenuated viruses of the present invention can be used to raise antibodies against BVDV. Immunogenic compositions and vaccine compositions, as well as therapeutic and diagnosis methods, are also provided by the present invention.

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TOPT-226866